

Multidimensional Treatment Foster Care

Benefit-cost estimates updated December 2015. Literature review updated June 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Program Description: Multidimensional Treatment Foster Care (MTFC) is an intensive therapeutic foster care alternative to institutional placement for adolescents who have problems with chronic antisocial behavior, emotional disturbance, and delinquency. MTFC activities include skills training and therapy for youth as well as behavioral parent training and support for foster parents and biological parents. In our analysis, we only include effect sizes from programs that were delivered competently and with fidelity to the program model.

Benefit-Cost Summary

Program benefits

Participants	\$1,538
Taxpayers	\$4,358
Other (1)	\$11,525
Other (2)	(\$1,925)
Total	\$15,495
Costs	(\$8,231)
Benefits minus cost	\$7,265

Summary statistics

Benefit to cost ratio	\$1.88
Benefits minus costs	\$7,265
Probability of a positive net present value	63 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our [technical documentation](#).

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				Total benefits
	Participants	Taxpayers	Other (1)	Other (2)	
From primary participant					
Crime	\$0	\$3,634	\$10,675	\$1,800	\$16,109
Labor market earnings (hs grad)	\$1,511	\$644	\$748	\$354	\$3,258
Property loss (alcohol abuse/dependence)	\$1	\$0	\$2	\$0	\$4
Health care (disruptive behavior disorder)	\$26	\$79	\$98	\$39	\$242
Adjustment for deadweight cost of program	\$0	\$0	\$1	(\$4,118)	(\$4,117)
Totals	\$1,538	\$4,358	\$11,525	(\$1,925)	\$15,495

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	\$31,883	1	2007	Present value of net program costs (in 2014 dollars)	(\$8,231)
Comparison costs	\$24,536	1	2007	Uncertainty (+ or - %)	10 %

Estimate provided by the Juvenile Rehabilitation Administration is based on an average length in the program during 2010 and includes oversight, coordination, and administration of the program. Aftercare programming for MTFC is discretionary and the additional associated cost calculation formulas are currently in development. The MTFC cost estimate is compared with alternative cost for youth in group homes.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our [technical documentation](#).

Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	3	134	-0.544	0.091	-0.110	0.126	17	-0.110	0.126	27
Teen pregnancy (under age 18)	Primary	1	134	-0.538	0.004	0.538	0.187	16	0.538	0.187	18
Externalizing behavior symptoms	Primary	1	20	-0.627	0.073	-0.627	0.350	17	-0.299	0.221	20
Internalizing symptoms	Primary	1	20	-0.428	0.216	-0.428	0.346	17	-0.312	0.295	20
Alcohol use in high school	Primary	1	32	-0.126	0.601	-0.045	0.240	17	-0.045	0.240	19
Smoking in high school	Primary	1	32	-0.190	0.429	-0.068	0.240	17	-0.068	0.240	19
Cannabis use in high school	Primary	1	32	-0.230	0.340	-0.083	0.240	17	-0.083	0.240	19
Illicit drug use in high school	Primary	1	32	-0.126	0.279	-0.094	0.240	17	-0.094	0.240	19

Citations Used in the Meta-Analysis

- Chamberlain, P., Fisher, P.A., & Moore, K. (2002). Multidimensional treatment foster care: Applications of the OSLC intervention model to high-risk youth and their families. In J.B. Reid, G.R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 203-218). Washington DC: American Psychological Association.
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- Kerr, D. C., Leve, L. D., & Chamberlain, P. (2009). Pregnancy rates among juvenile justice girls in two randomized controlled trials of multidimensional treatment foster care. *Journal of Consulting and Clinical Psychology*, 77(3), 588-593.
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- Westermark, P.K., Hansson, K., & Olsson, M. (2011). Multidimensional treatment foster care (MTFC): Results from an independent replication. *Journal of Family Therapy*, 33(1), 20-41.

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